ANNUAL REPORT

ON THE

HEALTH

OF THE

CRANBROOK RURAL SANITARY DISTRICT

In 1897.

CENSUS 1881.		CENSUS 1891.	
No. of Acres	41,436	No. of Acres	41,436
Inhabited Houses.....	2,754	Inhabited Houses.....	2,787
Population	13,773	Population	13,730

The Population of the Cranbrook Rural District was estimated by the method adopted by the Registrar-General to **13,710** at the middle of 1897, showing a slight decrease since the middle of 1895.

The registered births amounted to 330, consisting of 169 of males, and 161 of females, and giving a **Birth-rate** of **24·0** as against 21.8 in the previous year.

One hundred and seventy-five deaths were returned, consisting of 92 of males and 83 of females. The **Death-rate** was **12·7** per 1000 as against 10·7 in 1896.

The **Infant Mortality**, *i.e.*, the number of deaths of infants under 1 year of age per 1000 registered births was **103**, as compared with 90 in the previous year.

Of the total 175 deaths, 13 were caused by one or other of the seven principal zymotic diseases, viz:—5 from Whooping-cough, 3 from Typhoid Fever, 1 from Puerperal Fever, and 4 from Diarrhœa.

The **Zymotic Death-rate** was **0·9** per 1000 as against 0·3 in 1896.

During the year 1897 the birth-rate throughout England and Wales was 29·7, the general death-rate 17·4, and the zymotic death-rate 2·15 per 1000 of population. The rate of mortality among infants under one year to each 1000 registered births was 156.

NOTIFIABLE DISEASES.

Under the provisions of the Infectious Disease (Notification) Act, 1889, 68 cases were reported as against 102 in the previous year. They included 26 of Scarlet Fever, 24 of Diphtheria, 10 of Enteric Fever, 1 of Puerperal Fever, and 7 of Erysipelas.

Scarlet Fever.—Of the 26 cases reported, 15 occurred in the parish of Hawkhurst, whilst 1 was reported in Cranbrook, 6 in Frittenden and 4 in Sandhurst. None of the cases proved fatal. There was a marked decrease in the number of cases of Scarlet Fever compared with that of the previous year, when 72 cases occurred, and no schools had this year to be closed on account of the disease.

The cases occurred at the following age-periods :—

1—5 years.	5—15 years.	15—25 years.	25—65 years.
2	19	3	2=26 cases.

Diphtheria.—The cases of this disease which occurred during the year practically resolved themselves into a localised outbreak, for of the 24 total cases in the District, 22 of them were at Babies' Castle, Dr. Barnado's Home for Infants at Hawkhurst. Of the 2 cases, which did not occur in the Home, 1 arose at Benenden in May and 1 at Highgate, Hawkhurst, in September.

Considering the number of susceptible children received at Babies' Castle it is generally specially free from infectious cases and on the eight visits which I made during the outbreak, I had every reason to think that the patients were well attended to and isolated in the best manner available.

In all probability the disease was not directly introduced, but through the agency of a child who had been in contact with others during the late stage of convalescence when the disease persisted in the throat for an abnormal time, and I have no reason to believe that any second introduction of the disease into the Home from without took place.

Diphtheria has been very prevalent generally and I have had instances in other institutions during the past year where an absolutely separate Isolation Hospital has not been provided by the Institution, or by the Local Authority, in which the infection of Diphtheria has persisted for a very considerable time as shown by the bacteriological examination of the throat secretion.

The water from the two wells at Babies' Castle is of good quality.

The cases rapidly arose as follows :—

September 1st	1 case.	September 20th	2 ,,
,, 3rd	2 ,,	,, 29th	1 ,,
,, 5th	3 ,,	October 14th	1 ,,
,, 7th	2 ,,	December 25th	1 ,,
,, 8th	1 ,,	,, 26th	3 ,,
,, 9th	2 ,,	,, 30th	2 ,,
,, 18th	1 ,,	Total	22 cases.

It is satisfactory to record that no deaths resulted and the following shows the age-periods at which the cases occurred :—

1—5 years.	5—15 years.	15—25 years.	25—65 years.
14	5	4	1=24 cases.

Enteric Fever.—Ten cases were reported, viz. :—1 in Cranbrook, 7 in Goudhurst and 2 in Hawkhurst. Three of these cases ended fatally, 1 in Hawkhurst, and 2 in Goudhurst. The former was that of a girl aged 10 years, who succumbed to the disease in March.

Five of the cases formed a group which were traced to a common cause, viz :—a polluted well at the South Eastern Railway Station, Goudhurst.

Case I.—M.C., aged 5 years, daughter of the Station master. Notification received August 6th. Recovered.

Case II.—B.N., aged 17 years, a servant girl employed at the Station-house. Notification received August 16th. Recovered.

Case III.—S.H., aged 42 years, living at Risden Quarter, Kilndown, a distance of about a mile from the Goudhurst Station was notified on August 23rd. This man, in the employment of a local farmer, was engaged in carting manure from the Station. He and his son (Case IV) were at work together, and a younger son (Case V) brought their dinner to them at the Station, and they there all drank water from the polluted well with the meals.

Case IV.—W.H., aged 18 years, was notified on August 25th and died on September 8th.

Case V.—G.H., aged 11 years, the boy who brought the dinners, also drank the water, and was notified on August 26th. After a protracted illness he recovered.

A clergyman from a neighbouring parish, who in the absence of the Vicar, visited the house where the two fatalities occurred, and who administered the Holy Communion to the man mentioned above as Case III. shortly before his death, also contracted the disease and went through a sharp attack, ultimately recovering.

I at once examined the water, after notice of the first case, found it to be unfit for drinking and stopped the supply. A subsequent analysis by the Public Analyst on August 18th gave the following result :—

Hardness, Total	18·5	Grains per gallon.
„ Permanent	9·5	„ „
Chlorine	3·6	„ „
Total Solids	33·3	„ „
Loss on Ignition	7·4	„ „
Free Ammonia (Parts per 1,000,000)	2·63	
Albuminoid Ammonia (Parts per 1,000,000)	·20	
Nitrates	·69	Grains per gallon.
Oxygen absorbed in ¼ hour	·046	„ „
„ „ 4 „	·098	„ „
Smell	slight trace.	
Phosphoric Acid	„	„

" It is a very foul water, quite unfit for human consumption."

The well was found to be between two sets of closets, the soil pipes of which had defective clay joints and it may be fairly assumed that during the month of August some of the closets (which were used by passengers) became specifically polluted, as ordinary pollution must have existed before then, with the above disastrous results.

The whole of the drainage was taken up by the Company and re-modelled, and at the same time improvements were made in the Station house and yard and the premises are now in a sanitary condition, but the water of the well is still not used for drinking purposes.

The following were the age-periods of the cases and deaths :—

5—15 years.	15—25 years.	25—65 years.	
5	3	2	—10 cases.
1	1	1	—3 deaths.

Puerperal Fever.—One case of this disease was notified from Goudhurst early in October and the patient died in November.

Erysipelas.—None of the 7 notified cases were fatal and they occurred, 4 in Cranbrook, 1 in Goudhurst, 1 in Frittenden, and 1 in Sandhurst at the following age-periods.

15—25 years.	25—65 years.	65 upwards. years.	
2	4	1	—7 cases.

No case of Infectious Disease occurred among hop-pickers.

NON-NOTIFIABLE DISEASES.

Measles did not cause any deaths and was much less prevalent throughout the District than usual.

Whooping-cough.—5 children died from this disease, 4 under 1 year and 1 under 2 years of age, in Goudhurst 1, in Hawkhurst 3, and in Sandhurst 1.

Diarrhœa caused 4 deaths in July, August and September. The patients were aged 4 months, 6 months and 21 months, and the cases occurred 1 in Cranbrook, 2 in Goudhurst and 1 in Hawkhurst.

Influenza.—Four deaths were attributed to this disease, 1 at Benenden in March, 1 in Goudhurst in March, and 2 in Hawkhurst in April. The patients were all over 25 years of age.

OVERCROWDING.

A case of overcrowding was brought to my notice by your Inspector at the Moor, Hawkhurst, in which a man, his wife, and six children occupied a four-roomed cottage, where the total cubic space of Kitchen, Scullery and two Bedrooms amounted to less than 2000 cubic feet· Considerable trouble was caused by them refusing to move, after a most reasonable space of time had been allowed and finally it became necessary to obtain an ejectment order at the Cranbrook Petty Sessions on March 4th last.

In a case brought before us at Cranbrook by one of your District Visitors I was unable to recommend your Council to take any action.

INSANITARY HOUSES.

During January I had occasion to report upon three cottages situated at Crown Court, Cranbrook, which were in a dilapidated and unhealthy condition. These have satisfactorily been dealt with.

I also reported upon the bad state of repair, defective drainage and inefficient water supply of 11 cottages, known as Wickham's Row, Goudhurst. The owner is now carrying out the Council's notices to remedy these conditions.

In June last a representation was made by the Cranbrook Parish Council respecting the bad sanitary condition of some property known as the Tanyard, Cranbrook, and I reported on the same. The bed of the stream (River Crane) was found to be partially choked by refuse accumulations ; this was cleaned out and repairs effected in the sanitary condition of the premises adjoining.

DRAINAGE.

The nuisance at the Hawkhurst Moor, the property occupied by Major Davonport, has been temporarily dealt with by continuing the sewer through the grounds and putting in a tank on the lower side of the property.

None of the adjoining landowners would consent to take the sewage on to land or have a tank or filter bed made. A covered tank was put in at the side of a lane with underground cage for the solution of alumino-ferric cakes, and a small baffle race in which to promote mixing. This is now regularly looked after by a man living near with much better result.

This sewage, like all the other in Hawkhurst, passes directly, without further treatment, into the adjoining stream.

The remaining outfalls are in an extremely bad condition and the stream below the gasworks, particularly in dry weather, is in a specially filthy condition.

The nuisance complained of for several years at Mr. Pringle's has been considerably reduced by the owners combining to pipe in the cesspool overflows which are now carried to a lower part of the adjoining stream and do not cause a nuisance to the residents.

The whole of the drainage at St. George's Club, Benenden, has been re-laid in a substantial manner by Lord Cranbrook, as it was found that subsidence had taken place in some of the pipes.

Some other drainage in the middle of the village of Benenden was found to be defective, and among other things a cesspool was discharging on to the side of the highway. This has now been permanently stopped and a considerable length of new drains laid.

WATER SUPPLY.

The Cranbrook District Water Company has made considerable progress during the year towards making that supply available in the near future. Water mains are now laid from the boring in Soper's Lane, Hawkhurst, to that village and also through to Cranbrook: a reservoir is completed at Hartley, near the Cranbrook Union Workhouse and other parts of the necessary works have been effected.

The Company are also introducing a Bill for extension of and to supply water to the parishes of Benenden, Frittenden and Sandhurst, and to other places outside the Cranbrook Rural District.

It may also be noted that the Mid Kent Water Company has also scheduled the 3 parishes above-mentioned in their Bill.

Towards the end of 1896 my attention was called by two medical men to some cases at Kilndown, where the schoolmaster's wife and daughter and a boy were found to be showing unmistakable symptons of the absorption of lead into the system.

The water was naturally at once examined and samples taken from the pump in the school and also from the Schoolhouse showed on examination that both waters were enormously charged with lead.

The use of the supply for drinking purposes was at once given up and a recommendation made to the Trustees of the School that the well should be thoroughly cleaned out and that the lead suction pipe, pumps and other pipes (in fact all the lead in connection with the water) should be done away with and substituted by iron.

This, after several delays for one reason or other, was finally done, and the drainage of the school also examined and some alterations made in it, but although the improved supply has been available for several months past the pumps were not working well and easily at the end of the year.

Mr. Collins' Report of work done during the year, the customary Vital Statistics and the returns required by the Local Government Board are appended.

I have the honour to be, Gentlemen,

Your obedient Servant,

March 7th, 1898. JAMES SCOTT TEW.

WORK CARRIED OUT BY MR. COLLINS DURING THE YEAR ENDING DECEMBER, 1897.

Main and Branch drains laid, repaired, &c.	95
Cesspools and Nuisances abated	110
Slaughterhouses inspected	14
Lodging Houses inspected	3
Pig Pound Nuisances abated	18
Manure, Rubbish and open ditch nuisances abated	56
Privies repaired, &c.	34
Infected houses fumigated and whitewashed, &c.	75
New Privies and Water Closets built	52
Overcrowded houses	2
Cow sheds and premises inspected	24
Farmers' hop-pickers' accommodation inspected	30
Wells of water attended to, with new wells sunk	44
Notices served	29
	586

TABLE I.

The number of Deaths from all causes and from the seven principal Zymotic Diseases with their Death-rates; the principal causes of Death and the Infant Mortality in each quarter of 1897 in the Cranbrook Rural District.

QUARTERS.	Total Deaths.	Death-rate per 1000	Deaths from Seven principal Zymotic Diseases.	Zymotic Death-rate.	Small-pox.	Scarlet Fever.	Diphtheria.	Membranous Croup.	Enteric Fever.	Puerperal Fever.	Erysipelas.	Measles.	Whooping-cough.	Diarrhœa.	Rheumatic Fever.	Bronchitis, Pleurisy, Pneumonia.	Phthisis.	Heart Disease.	Influenza.	Injuries.	All Other Diseases.	Deaths of Infants under one year per 1,000 Births.
1st ..	54	15·7	1	0·2	..	..	..	..	1	..	..	..	..	..	1	10	3	3	1	2	33	101
2nd ..	41	11·9	1	0·2	..	..	..	..	..	..	..	..	1	..	..	5	1	7	3	1	23	112
3rd ..	45	13·1	7	2·0	..	..	..	..	2	..	..	..	1	4	..	4	4	5	..	1	24	122
4th ..	35	10·2	4	1·1	..	..	..	..	..	1	..	..	3	..	1	5	1	1	..	..	23	59
TOTALS	175	12·7	13	0·9	..	..	..	..	3	1	..	..	5	4	2	24	9	16	4	4	103	103

TABLE II.

Deaths from Zymotic Diseases during the past ten years and in 1897.

Zymotic Diseases.	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	Average of ten years.	1897
Small-pox	..	..	..	..	..	..	..	..	..	..	0·0	0
Scarlet Feaver....	..	..	..	..	1	1	2	..	..	1	0·5	0
Diphtheria.....	6	1	1	..	..	1	10	1	2	..	2·2	0
Measles	1	..	..	3	..	1	7	..	..	3	1·5	0
Whooping-cough..	5	1	2	9	1	..	4	1	6	1	3·0	5
Fevers	..	1	2	..	1	..	3	1	..	..	0·8	4
Diarrhœa	..	1	4	2	1	1	5	1	1	..	1·6	4
Total Zymotics....	12	4	9	14	4	4	31	4	9	5	9·6	13
Other Zymotics....	..	1	1	6	4	12	12	12	5	6	5·9	4
Totals	12	5	10	20	8	16	43	16	14	11	15·5	17

TABLE III

The number of Deaths from all causes and from the seven principal Zymotic Diseases with their Death-rates in each Parish of the Cranbrook Rural District in the year 1897.

Parishes.	Census Population 1891.	Total Deaths.	Death-Rate.	Deaths from 7 principal Zymotic Diseases.	Zymotic Death-Rate.
Frittenden	974	7	7·0	0	0·0
Benenden	1596	16	10·0	0	0·0
Sandhurst	1106	12	11·2	1	0·9
Goudhurst	2734	34	12·5	6	2·2
Hawkhurst	3274	48	14·1	5	1·4
Cranbrook	4046	58	14·7	1	0·2

TABLE OF **POPULATION, BIRTHS, and of New Cases of INFECTIOUS SICKNESS,** *coming to the knowledge of the Medical Officer of Health, during the year 1897, in the CRANBROOK Rural Sanitary District; classified according to Diseases, Ages and Localities.*

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	Population at all Ages.		Registered Births.	Aged under 5 or over 5.	New cases of Sickness in each locality coming to the knowledge of the Medical Officer of Health.				
	Census 1891.	Estimated to middle of 1897.			Scarlatina.	Diphtheria.	Enteric or Typhoid Fever.	Puerperal Fever.	Erysipelas.
Benenden	1596	1590	..	Under 5.	..	..	..	..	..
				5 upwds.	..	1	..	..	..
Cranbrook	4046	3943	..	Under 5.	..	..	..	..	..
				5 upwds.	1	..	1	..	4
Goudhurst	2734	2708	..	Under 5.	..	..	..	..	..
				5 upwds.	..	..	7	1	1
Frittenden	974	1000	..	Under 5.	..	..	..	..	..
				5 upwds.	6	..	..	..	1
Hawkhurst	3274	3402	..	Under 5.	2	13	..	..	..
				5 upwds.	13	10	2	..	..
Sandhurst	1106	1067	..	Under 5.	..	..	..	..	..
				5 upwds.	4	..	..	..	1
Total	13730	13710	330	Under 5.	2	13	..	..	..
				5 upwds.	24	11	10	1	7

TABLE OF **DEATHS** *during the year 1897, in the CRANBROOK Rural Sanitary District, classified according to DISEASES, AGES, and LOCALITIES.*

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	Mortality from all Causes. At subjoined Ages.								Mortality from subjoined causes, distinguishing Deaths of Children under 5 years of age.											
	At all ages.	Under 1 year.	1 and under 5	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.		Enteric or Typhoid	Puerperal.	Whooping cough	Diarrhœa and Dysentery.	Rheumatic Fever	Phthisis.	Bronchitis, Pneumonia and Pleurisy.	Heart Disease.	Influenza.	Injuries.	All Other Diseases.	Total.
Benenden	16	1	1	..	2	6	6	Under 5.	..	..	..	..	..	..	..	—	—	—	2	2
								5 upwards.	..	..	..	..	..	2	3	2	1	—	6	14
Cranbrook	58	10	3	2	2	13	28	Under 5.	..	..	..	1	..	..	2	—	—	—	10	13
								5 upwards.	..	..	..	..	1	1	4	6	—	2	31	45
Goudhurst	34	6	3	2	3	10	10	Under 5.	..	..	1	2	..	..	1	—	—	—	5	9
								5 upwards.	2	1	..	..	..	3	3	2	1	2	11	25
Frittenden	7	1	..	..	1	2	3	Under 5.	..	..	..	..	..	..	..	—	—	—	1	1
								5 upwards.	..	..	..	..	..	..	1	—	—	—	5	6
Hawkhurst	48	14	3	4	..	12	15	Under 5.	..	..	3	1	..	..	3	—	—	—	10	17
								5 upwards.	1	..	..	..	1	3	6	4	2	—	14	31
Sandhurst	12	2	1	..	2	2	5	Under 5.	..	..	1	..	..	..	..	—	—	—	2	3
								5 upwards.	..	..	..	..	..	..	1	2	—	—	6	9
Total	175	34	11	8	10	45	67	Under 5.	..	..	5	4	..	..	6	—	—	—	30	45
								5 upwards.	3	1			2	9	18	16	4	4	73	130

Annual Report

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CRANBROOK RURAL DISTRICT,

IN

1897,

BY

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MEDICAL OFFICER OF HEALTH.

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